

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

- 1-18. (canceled)
19. (previously presented) An immune adjuvant composition comprising
- (a) a saponin possessing immune adjuvant activity, wherein the saponin is derived from *Quillaja saponaria*; and
- (b) an immunostimulatory oligonucleotide comprising at least one unmethylated CpG dinucleotide,
- wherein the immunostimulatory oligonucleotide is not a part of a DNA vaccine vector.
20. (canceled)
21. (previously presented) The immune adjuvant composition as claimed in claim 19, wherein the saponin comprises a substantially pure saponin.
22. (previously presented) The immune adjuvant composition as claimed in claim 21, wherein the substantially pure saponin comprises QS-7, QS-17, QS-18, or QS-21.
23. (previously presented) The immune adjuvant composition as claimed in claim 22, wherein the substantially pure saponin comprises QS-21.
24. (previously presented) The immune adjuvant composition as claimed in claim 19, wherein the immunostimulatory oligonucleotide comprises more than one unmethylated CpG dinucleotide.
25. (currently amended) The immune adjuvant composition as claimed in claim 19, wherein the immunostimulatory oligonucleotide comprises ~~one or more chemical groups~~ at least one chemical group selected from the group consisting of phosphorothioate, alkylphosphonate, phosphorodithioate, alkylphosphorothioate, phosphoramidate, 2-O-methyl, carbamate, acetamidate, carboxymethyl ester, carbonate, and phosphate triester.
26. (previously presented) , The immune adjuvant composition as claimed in claim 19, wherein the immunostimulatory oligonucleotide comprises at least one phosphorothioate modified nucleotide.

27. (previously presented) The immune adjuvant composition as claimed in claim 19, wherein the immunostimulatory oligonucleotide comprises a CpG motif having the formula 5'X₁CGX₂3', wherein X₁ is adenine, guanine, or thymine, and X₂ is cytosine, thymine, or adenine.

28. (previously presented) The immune adjuvant composition as claimed in claim 19, wherein the immunostimulatory oligonucleotide comprises TCTCCCAGCGTGCGCCAT (SEQ ID NO:1).

29-62. (canceled)

63. (previously presented) An immune adjuvant composition comprising
(a) a saponin possessing immune adjuvant activity, wherein the saponin is derived from *Quillaja saponaria*; and
(b) an immunostimulatory oligonucleotide comprising at least one unmethylated CpG dinucleotide,

wherein the saponin comprises substantially pure QS-7, QS-17 or QS-18.

64. (currently amended) A method for inducing an immune response in an individual to an antigen comprising (1) administering ~~to the individual~~ an amount of the immune adjuvant composition as claimed in claim 63 to the individual; and (2) administering ~~to the individual~~ a nucleic acid molecule comprising a nucleotide sequence encoding the antigen to the individual, ~~wherein the nucleic acid molecule is administered separately from the immune adjuvant composition or in the same formulation with the immune adjuvant composition;~~ and wherein (1) and (2) induce an immune response in the individual to the antigen.

65. (currently amended) An immune adjuvant composition comprising
(a) a saponin possessing immune adjuvant activity, wherein the saponin is derived from *Quillaja saponaria*; and
(b) an immunostimulatory oligonucleotide comprising at least one unmethylated CpG dinucleotide,

wherein the immunostimulatory oligonucleotide comprises ~~one or more chemical groups~~ at least one chemical group selected from the group consisting of phosphorothioate, alkylphosphonate, phosphorodithioate, alkylphosphorothioate, phosphoramidate, 2-O-methyl, carbamate, acetamidate, carboxymethyl ester, carbonate, and phosphate triester.

66. (previously presented) The immune adjuvant composition as claimed in claim 65, wherein the immunostimulatory oligonucleotide comprises at least one phosphorothioate modified nucleotide.

67. (currently amended) A method for inducing an immune response in an individual to an antigen comprising (1) administering ~~to the individual~~ an amount of the immune adjuvant composition as claimed in claim 65 to the individual; and (2) administering ~~to the individual~~ a nucleic acid molecule comprising a nucleotide sequence encoding the antigen to the individual, ~~wherein the nucleic acid molecule is administered separately from the immune adjuvant composition or in the same formulation with the immune adjuvant composition;~~ and wherein (1) and (2) induce an immune response in the individual to the antigen.

68. (currently amended) A method for inducing an immune response in an individual to an antigen comprising (1) administering ~~to the individual~~ an amount of the immune adjuvant composition as claimed in claim 66 to the individual; and (2) administering ~~to the individual~~ a nucleic acid molecule comprising a nucleotide sequence encoding the antigen to the individual, ~~wherein the nucleic acid molecule is administered separately from the immune adjuvant composition or in the same formulation with the immune adjuvant composition;~~ and wherein (1) and (2) induce an immune response in the individual to the antigen.

69. (previously presented) An immune adjuvant composition comprising
(a) a saponin possessing immune adjuvant activity, wherein the saponin is derived from *Quillaja saponaria*; and
(b) an immunostimulatory oligonucleotide comprising at least one unmethylated CpG dinucleotide,
wherein the immunostimulatory oligonucleotide comprises
TCTCCCAGCGTGCGCCAT (SEQ ID NO:1).

70. (currently amended) A method for inducing an immune response in an individual to an antigen comprising (1) administering ~~to the individual~~ an amount of the immune adjuvant composition as claimed in claim 69 to the individual; and (2) administering ~~to the individual~~ a nucleic acid molecule comprising a nucleotide sequence encoding the antigen to the individual, ~~wherein the nucleic acid molecule is administered separately from the immune adjuvant composition or in the same formulation with the~~

~~immune adjuvant composition; and~~ wherein (1) and (2) induce an immune response in the individual to the antigen.

71. (previously presented) An immune adjuvant composition comprising
(a) a saponin possessing immune adjuvant activity, wherein the saponin is derived from *Quillaja saponaria*; and
(b) an immunostimulatory oligonucleotide comprising at least one unmethylated CpG dinucleotide,
wherein the immunostimulatory oligonucleotide comprises
TCCATGACGTCCTGACGTT (SEQ ID NO:2).

72. (currently amended) A method for inducing an immune response in an individual to an antigen comprising (1) administering ~~to the individual~~ an amount of the immune adjuvant composition as claimed in claim 71 to the individual; and (2) administering ~~to the individual~~ a nucleic acid molecule comprising a nucleotide sequence encoding the antigen to the individual, ~~wherein the nucleic acid molecule is administered separately from the immune adjuvant composition or in the same formulation with the immune adjuvant composition; and~~ wherein (1) and (2) induce an immune response in the individual to the antigen.

73. (previously presented) An immune adjuvant composition comprising
(a) a saponin possessing immune adjuvant activity, wherein the saponin is derived from *Quillaja saponaria*; and
(b) an immunostimulatory oligonucleotide comprising at least one unmethylated CpG dinucleotide, wherein the immunostimulatory oligonucleotide is 4-40 bases in length.

74. (currently amended) A method for inducing an immune response in an individual to an antigen comprising (1) administering ~~to the individual~~ an amount of the immune adjuvant composition as claimed in claim 73 to the individual; and (2) administering ~~to the individual~~ a nucleic acid molecule comprising a nucleotide sequence encoding the antigen to the individual, ~~wherein the nucleic acid molecule is administered separately from the immune adjuvant composition or in the same formulation with the immune adjuvant composition; and~~ wherein (1) and (2) induce an immune response in the individual to the antigen.

75. (previously presented) An immune adjuvant composition comprising

- (a) a saponin possessing immune adjuvant activity, wherein the saponin (i) is derived from *Quillaja saponaria* and (ii) is a chemically modified saponin; and
- (b) an immunostimulatory oligonucleotide comprising at least one unmethylated CpG dinucleotide.

76. (currently amended) A method for inducing an immune response in an individual to an antigen comprising (1) administering ~~to the individual~~ an amount of the immune adjuvant composition as claimed in claim 75 to the individual; and (2) administering ~~to the individual~~ a nucleic acid molecule comprising a nucleotide sequence encoding the antigen to the individual, ~~wherein the nucleic acid molecule is administered separately from the immune adjuvant composition or in the same formulation with the immune adjuvant composition; and~~ wherein (1) and (2) induce an immune response in the individual to the antigen.

77. (previously presented) The composition of claim 19, wherein the saponin is a chemically modified saponin.

78. (previously presented) The immune adjuvant composition as claimed in claim 19, wherein the immunostimulatory oligonucleotide comprises TCCATGACGTTCTGACGTT (SEQ ID NO:2).

79-89. (canceled)

90. (currently amended) A method for inducing an immune response in an individual to an antigen comprising (1) administering ~~to the individual~~ an amount of the immune adjuvant composition as claimed in claim 19 to the individual; and (2) administering ~~to the individual~~ a nucleic acid molecule comprising a nucleotide sequence encoding the antigen to the individual, ~~wherein the nucleic acid molecule is administered separately from the immune adjuvant composition or in the same formulation with the immune adjuvant composition; and~~ wherein (1) and (2) induce an immune response in the individual to the antigen.

91. (canceled)

92. (previously presented) The method as claimed in any of claims 64, 67, 68, 70, 72, 74, 76, or 90, wherein the saponin comprises a substantially pure saponin.

93. (previously presented) The method as claimed in claim 92, wherein the substantially pure saponin comprises QS-7, QS-17, QS-18, or QS-21.

94. (previously presented) The method as claimed in claim 93, wherein the substantially pure saponin comprises QS-21.

95. (previously presented) The method as claimed in any of claims 64, 67, 68, 70, 72, 74, 76, or 90, wherein the immunostimulatory oligonucleotide comprises more than one unmethylated CpG dinucleotide.

96. (currently amended) The method as claimed in any of claims 64, 70, 72, 74, 76, or 90, wherein the immunostimulatory oligonucleotide comprises ~~one or more~~ chemical groups at least one chemical group selected from the group consisting of phosphorothioate, alkylphosphonate, phosphorodithioate, alkylphosphorothioate, phosphoramidate, 2-O-methyl, carbamate, acetamidate, carboxymethyl ester, carbonate, and phosphate triester.

97. (previously presented) The method as claimed in any of claims 64, 70, 72, 74, 76, or 90, wherein the immunostimulatory oligonucleotide comprises at least one phosphorothioate modified nucleotide.

98. (previously presented) The method as claimed in any of claims 64, 67, 68, 70, 72, 74, 76, or 90, wherein the immunostimulatory oligonucleotide comprises a CpG motif having the formula 5'X₁CGX₂3', wherein X₁ is adenine, guanine, or thymine, and X₂ is cytosine, thymine, or adenine.

99. (previously presented) The method as claimed in any of claims 64, 67, 68, 74, 76, or 90, wherein the immunostimulatory oligonucleotide comprises TCTCCCAGCGTGCGCCAT (SEQ ID NO:1) or TCCATGACGTTCTGACGTT (SEQ ID NO:2).

100. (previously presented) The method as claimed in any of claims 64, 67, 68, 70, 72, 74, 76, or 90, wherein the individual is an animal.

101. (previously presented) The method as claimed in claim 100, wherein the animal is a mammal.

102. (previously presented) The method as claimed in any of claims 64, 67, 68, 70, 72, 74, 76, or 90, wherein the individual is a human.

103. (previously presented) An vaccine composition comprising
(a) a saponin possessing immune adjuvant activity, wherein the saponin is derived from *Quillaja saponaria*;

(b) an immunostimulatory oligonucleotide comprising at least one unmethylated CpG dinucleotide; and

(c) a nucleic acid molecule comprising a nucleotide sequence encoding an antigen, wherein the nucleotide sequence is operatively linked to a promoter, wherein the immunostimulatory oligonucleotide is not a part of the nucleic acid molecule comprising the nucleotide sequence encoding the antigen.

104. (canceled)

105. (previously presented) The vaccine composition as claimed in claim 103, wherein the saponin comprises a substantially pure saponin.

106. (previously presented) The vaccine composition as claimed in claim 105, wherein the substantially pure saponin comprises QS-7, QS-17, QS-18, or QS-21.

107. (previously presented) The vaccine composition as claimed in claim 106, wherein the substantially pure saponin comprises QS-21.

108. (previously presented) The vaccine composition as claimed in claim 103, wherein the immunostimulatory oligonucleotide comprises more than one unmethylated CpG dinucleotide.

109. (previously presented) The vaccine composition as claimed in claim 103, wherein the immunostimulatory oligonucleotide comprises one or more chemical groups selected from the group consisting of phosphorothioate, alkylphosphonate, phosphorodithioate, alkylphosphorothioate, phosphoramidate, 2-O-methyl, carbamate, acetamidate, carboxymethyl ester, carbonate, and phosphate triester.

110. (previously presented) The vaccine composition as claimed in claim 103, wherein the immunostimulatory oligonucleotide comprises at least one phosphorothioate modified nucleotide.

111. (previously presented) The vaccine composition as claimed in claim 103, wherein the immunostimulatory oligonucleotide comprises a CpG motif having the formula 5'X₁CGX₂3', wherein X₁ is adenine, guanine, or thymine, and X₂ is cytosine, thymine, or adenine.

112. (previously presented) The vaccine composition as claimed in claim 103, wherein the immunostimulatory oligonucleotide comprises TCTCCAGCGTGCGCCAT (SEQ ID NO:1) or TCCATGACGTTCTGACGTT (SEQ ID NO:2).

113. (previously presented) The method of any of claims 64, 70, 72, 76, or 90, wherein the nucleic acid molecule comprising a nucleotide sequence encoding the antigen is administered to the individual within 2 days of said administering of the immune adjuvant composition.

114. (previously presented) The method of claim 113, wherein the nucleic acid molecule encoding the antigen is administered to the individual concurrently with the immune adjuvant composition.

115-126. (canceled)

127. (previously presented) The method of any of claims 67, 68, or 74, wherein the nucleic acid molecule comprising a nucleotide sequence encoding the antigen is administered to the individual within 2 days of said administering of the immune adjuvant composition.

128. (previously presented) The method of claim 127, wherein the nucleic acid molecule encoding the antigen is administered to the individual concurrently with the immune adjuvant composition.

129-149. (canceled)